

WHAT IS CLAIMED IS:

1. A system for providing quality of service transport in a wireless telecommunications network, comprising:

5 a mobile station operable to provide wireless telecommunications traffic, the mobile station operable to set a class of service for the wireless telecommunications traffic;

10 a base transceiver station operable to establish a communication session with the mobile station, the base station operable to determine a class of service for the communication session as set by the mobile station.

15 2. The system of Claim 1, wherein the mobile station provides the wireless telecommunications traffic in a radio frame.

20 3. The system of Claim 2, wherein the mobile station sets the class of service for the wireless telecommunications traffic in a particular field of the radio frame.

25 4. The system of Claim 3, wherein the particular field of the radio frame is a transport format combination indicator field.

5 5. The system of Claim 1, wherein the base
transceiver station is operable to encapsulate the
wireless telecommunications traffic into one or more
Internet Protocol packets, the base transceiver station
operable to map the class of service set by the mobile
station into a differentiated service code point field in
header information of each Internet Protocol packet, the
base transceiver station operable to route the wireless
telecommunications traffic according to the class of
10 service mapped into the differentiated services code
point field.

15 6. A method for providing quality of service
transport in a wireless telecommunications network,
comprising:

 establishing a communication session over a wireless
telecommunications link;

20 receiving wireless telecommunications traffic during
the communication session, the wireless
telecommunications traffic including a class of service
indication;

25 mapping the wireless telecommunications traffic to
routing channels according to the class of service
indication.

 7. The method of Claim 6, wherein the wireless
telecommunications traffic is received in a radio frame.

30 8. The method of Claim 7, wherein the class of
service indication for the communication session is set
in a particular field of the radio frame.

9. The method of Claim 8, wherein the particular field is a transport format combination indicator field.

5 10. The method of Claim 6, wherein the class of service indication is inserted into the wireless telecommunications traffic by a mobile station, the wireless telecommunications traffic being received by a base transceiver station for mapping into routing channels of wired telecommunications network links.

10 11. A system for providing quality of service transport in a wireless telecommunications network, comprising:

15 means for establishing a communication session over a wireless telecommunications link;

means for receiving wireless telecommunications traffic during the communication session, the wireless telecommunications traffic including a class of service indication;

20 means for mapping the wireless telecommunications traffic to routing channels according to the class of service indication.

12. The system of Claim 11, further comprising:

25 means for inserting the class of service indication into the wireless telecommunications traffic at an originator of the communication session;

means for sending the wireless telecommunications traffic.

13. The system of Claim 12, wherein the means for sending the wireless telecommunications traffic includes means for sending the wireless telecommunications traffic as radio frames.

14. The system of Claim 13, wherein the means for inserting the class of service indication includes means for setting a transport format combination indicator field of the radio frames.

15. The system of Claim 14, wherein the transport format combination indicator field is a two bit field specifying the class of service indication.

16. A system for providing quality of service transport in a wireless telecommunications network, comprising:

a base transceiver station operable to establish a communication session with a mobile station, the base transceiver station operable to receive wireless telecommunications traffic from the mobile station, the base transceiver station operable to determine a class of service for the wireless telecommunications traffic as set by the mobile station, the base transceiver station operable to map the wireless telecommunications traffic onto appropriate routing channels according to the class of service indication for transport through a wired telecommunications network.

17. The system of Claim 16, wherein the wireless telecommunications traffic is transported in radio frames.

18. The system of Claim 17, wherein the base transceiver station is operable to identify a transport format combination indicator field in the radio frame, the transport format combination indicator field operable to carry the class of service indication.

19. The system of Claim 18, wherein the base transceiver station is operable to encapsulate the radio frames into Internet Protocol packets.

20. The system of Claim 19, wherein the base transceiver station is operable to map the class of service indication carried in the transport format combination indicator field of the radio frame into a differentiated services code point field in header information of each Internet Protocol packet.

21. The system of Claim 20, wherein the base transceiver station is operable to forward the Internet Protocol packets to a base station controller over an Internet Protocol network according to the class of service indication in the differentiated services code point field.

22. The system of Claim 18, wherein the transport format combination indicator field includes two bits to carry the class of service indication.

23. The system of Claim 16, wherein the base transceiver station is operable to provide the class of service indication to the mobile station for insertion into the wireless telecommunications traffic.

24. A computer readable medium including code for providing quality of service transport in a wireless telecommunications network, the code operable to:

5 establish a communication session over a wireless telecommunications link;

receive wireless telecommunications traffic during the communication session, the wireless telecommunications traffic including a class of service indication;

10 map the wireless telecommunications traffic to routing channels according to the class of service indication.

25. The computer readable medium of Claim 24,
15 wherein the code is operable to receive the wireless telecommunications traffic as radio frames.

26. The computer readable medium of Claim 25,
20 wherein the code is operable to identify a transport format combination field in the radio frames, the transport format indicator field operable to carry the class of service indication.

27. The computer readable medium of Claim 23,
25 wherein the class of service indication occupies two bits of the transport format combination field.

28. The computer readable medium of Claim 24,
30 wherein the code is operable to provide the class of service indication during the communication session for insertion into the wireless telecommunications traffic.

29. The computer readable medium of Claim 26, wherein the code is operable to encapsulate the radio frames into Internet Protocol packets.

5 30. The computer readable medium of Claim 29,
 wherein the code is operable to map the transport format
 combination indicator field into a differentiated service
 code point field in header information of the Internet
 Protocol packets.